

[Claims]

[Claim 1]

An electronic circuit characterized by comprising:

a driving element including a plurality of transistors;

5 wherein the plurality of transistors is connected in series when inputting current and the plurality of transistors is connected in parallel when outputting current.

[Claim 2]

An electronic circuit characterized by comprising:

a driving element including a plurality of transistors;

10 wherein the electronic circuit has means to switch between a series connection state and a parallel connection state of the plurality of transistors; and

amplifies an inputted current for output.

[Claim 3]

An electronic circuit which amplifies an inputted current when outputted, characterized

15 by comprising:

a driving element including a plurality of transistors; and

a switch,

wherein each gate of the plurality of transistors is connected to each other;

20 at least one of a source or a drain of each of the plurality of transistors is connected to a source or a drain of another transistor of the plurality of transistors; and

the plurality of transistors can be connected either in series or parallel by switching over the switch.

[Claim 4]

An electronic circuit characterized in by comprising:

25 n transistors; and

a first and a second switch,

wherein gates of the n transistors are connected electrically;

either of sources or drains of the n transistors are electrically connected to the first switch respectively;

30 another of sources or drains of the n transistors are electrically connected to the second

switch respectively;

when a current is inputted to the electronic circuit, as for a k th transistor ($k=2$ to less than n) in the n transistors, a current flows through a $(k-1)$ th transistor to a $(k+1)$ th transistor via the k th transistor; and

5 when the current is outputted in the electronic circuit, as for the k th transistors, the current flows from the side connected to the second switch to the side connected to the first switch.

[Claim 5]

10 The electronic circuit according to any of claims 1 to 4, characterized in that the plurality of transistors are either all p-channel type or n-channel type.

[Claim 6]

The electronic circuit according to any of claims 1 to 4, characterized in that channel lengths, channel widths and insulating film thicknesses of the plurality of transistors are all equal.

15 [Claim 7]

The electronic circuit according to any of claims 1 to 4, characterized in that the plurality of transistors are TFTs.

[Claim 8]

20 An integrated circuit characterized in by using the electronic circuit according to any of claims 1 to 7.

[Claim 9]

A system circuit characterized by using:

the electronic circuit according to any of claims 1 to 7,

wherein the system circuit is formed over a glass substrate.

25 [Claim 10]

An electronic device characterized by using the electronic circuit according to any of claims 1 to 7.

[Claim 11]

The electronic device according to claim 10, characterized in that

30 the electronic device is selected from the group consist of a monitor, a video camera, a

digital camera, a goggle type display, a navigation system, an audio component system, a car audio, a personal computer, a game machine, a mobile computer, a portable phone, a portable game machine, an electronic book, and an image reproduction device provided with a recording medium.

5 [Claim 12]

A personal computer comprising a body, a housing, an external connecting port, and an electronic circuit having a driving element, characterized in

that the driving element comprises a plurality of transistors, and

that the plurality of transistors are in a series connection state when a current is inputted

10 and in a parallel connection state when a current is outputted.

[Claim 13]

A personal computer comprising a body, a housing, an external connecting port, and an electronic circuit having a driving element, characterized in

that the electronic circuit comprises a driving element provided with a plurality of

15 transistors and a switch,

that the electronic circuit amplifies an inputted current for output,

that each gate of the plurality of transistors is connected to each other,

that at least one of a source and a drain of each of the plurality of transistors is connected to a source or a drain of other one of the plurality of transistors, and

20 that the plurality of transistors are in a series connection state or a parallel connection state by a switching over of the switch.

[Claim 14]

The personal computer according to claim 12 or 13, characterized in that the personal computer comprises a display portion.

25 [Claim 15]

The personal computer according to claim 12 or 13, characterized in that the electronic circuit is included in a display portion.

[Claim 16]

The personal computer according to claim 12 or 13, characterized wherein the personal computer comprises a keyboard and a pointing mouse.